

Total No. of Questions : 5]

SEAT No. :

PA-1959

[Total No. of Pages : 3

[5954]-104

F.Y. B.B.A. (C.A.)

CA - 104 : DATABASE MANAGEMENT SYSTEM

(2019 Pattern) (CBCS) (Semester - I)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates :

- 1) All questions are compulsory.
- 2) Figures to the right indicate full marks.

Q1) Attempt any Eight of the following :

[16]

- a) What is File? Enlist types of files.
- b) Define Data and Information.
- c) What is Generalization? Give Example.
- d) Explain the use of MIN 0 with example.
- e) Define Attribute and Tuple.
- f) What is RDBMS?
- g) What is SQL? Enlist two types of SQL Commands.
- h) What is Deletion Anomaly?
- i) Explain Logical Data Independence.
- j) Define Super Key.

Q2) Attempt any Four of the following :

[16]

- a) Explain in detail Sequential File Organization.
- b) What is DBMS? Explain applications of DBMS.
- c) Explain any four data types in SQL.
- d) Explain CREATE TABLE command with syntax and example.
- e) Explain functional dependency with example.

P.T.O.

Q3) Attempt any Four of the following :

[16]

- a) Consider the following Entities and Relationships & solve the queries :
- Department** (dept_no, dept_name, location)
Employee (emp_no, emp_name, address, salary, designation)
Relation between Department and Employee is **One to Many**.
- Find the name of department whose salary is above 10000.
 - Display list of employees having designation 'CLERK'.
- b) Consider the following Entities and Relationships and solve the queries :
- Donor** (donor_no, donor_name, city)
Blood_Donation (bid, blood_group, quantity, date_of_collection)
Relation between Donor and Blood_Donation is **One to Many**.
Constraint : Primary key, blood_group should not be null.
- Display total blood quantity collected on 25th December 2013.
 - Display total blood donated by each donor.
- c) Consider the following Entities and Relationships and solve the queries :
- Bus** (bus_no, capacity, depot_no)
Route (rout_no, source, destination, no_of_stations)
Relation between Bus and Route is **Many to One**.
Constraint : Primary key.
- Find out the route details on which buses whose capacity is 20 runs.
 - Display number of stations from 'Chinchwad' to 'Katraj'.
- d) Consider the following Entities and Relationships and solve the queries :
- Musician** (mno, mname, addr, phno)
Album (title, copy_right_dae, format)
Relation between Musicians and Album is **One to Many**.
Constraint : Primary key.
- Display all albums composed by 'A R Rehman'.
 - Display musician details who have composed Audio album.
- e) Consider the following Entities and Relationships & solve the queries :
- Book** (Book_no, title, author, price, year_published)
Customer (cid, cname, addr)
Relation between Book and Customer is **Many to Many**.
Constraint : Primary key, price should be >0.
- Display author wise details of book.
 - Display customer name that has purchased more than 3 books.

Q4) Attempt any Four of the following :

[16]

- a) Explain Advantages and disadvantages of Indexed file organization.
- b) Write a note on Data Views.
- c) Explain the following SQL commands with syntax and example :
 - i) DROP TABLE
 - ii) UPDATE
- d) Consider the following Entities and Relationships and solve the queries :
Employee (emp_id, emp_name, address)
Investment (inv_no, inv_name, inv_date, inv_amount)
Relation between Employee and Investment is **One to Many**.
Constraint : Primary key, inv_amount should be > 0.
 - Display employee details who have invested more than 100000.
 - Display employee wise total investment amount.
- e) Consider the following Entities and Relationships & write queries for following.
Property (pno, desc, area, rate)
Owner (owner_name, addr, phno)
Relation between owner and Property is **One to Many**.
 - Display owner details having rate of property less than Rs. 20,00,000.
 - Display owner name having maximum no. of properties.

Q5) Write short notes on any Two of the following :

[6]

- a) Normalization
- b) E-R Model.
- c) SQL and Types of SQL

